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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,189	01/08/2001	Bong-hwan Cho	Q62412	4872

7590 08/18/2004

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WASHINGTON, DC 20037-3213

EXAMINER

NGO, CHUONG D

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/755,189	<b>Applicant(s)</b> CHO, BONG-HWAN	
	<b>Examiner</b> Chuong D Ngo	<b>Art Unit</b> 2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2004.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-3, 13, 14, 17 and 18 is/are rejected.  
 7) ☒ Claim(s) 4-12, 15 and 16 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1,2 and 13 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gross (4,326,260).

Gross discloses in figure 1 an apparatus for detecting an operation value for input data including a means (34) for storing unevenly spaced seed values (34, see figure 4), and address and data generator (24,26) for comparing the input data with reference values (see figure 3) and generating an address (28) and revised input data (36), and an operator (22,40) for performing a predetermined operation to output an operation values as claimed.

2. Claim 3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gross (4,326,260).

It is noted that Gross does not disclose the addition of new seed points until an error value satisfies error rate conditions. However, Gross disclose in col. 3, lines 45-48, that the apparatus has three seed points but suggest that additional seed points may be included. It would have been obvious to a person of ordinary skill in the art to add more seed points to the apparatus of Gross if an error value does not satisfies error rate conditions, in order to reduce errors.

3. Claims 1,13,14,17 and 18 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by Duvanenko et al. (5,951,625)

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Duvenenko et al discloses in figure 3A an apparatus for detecting an operation value for input data including a means (34) for storing seed values (22), and address and data generator (24) for comparing the input data with a reference value (see figure 4, 100) and generating an upper address and a lower address (see figure 4, 114, 118), and revised input data (20), and an operator (26) for performing a predetermined operation to output an operation values as claimed.

4. Claims 4-12, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Applicant's arguments filed on 05/24/2004 have been fully considered but they are not persuasive.

It is respectfully submitted that Gross does disclose a ROM and Kuvanenko discloses LUT as the claimed look up table. In addition, the seed points and the number of seed points in both Gross and Duvenenko are not randomly selected but clearly based on some error rate, otherwise, only one seed point is needed. Further, Gross' suggestion of additional seed points in col. 3, lines 45-48, is clearly for nothing else but reducing the approximation error.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D Ngo whose telephone number is (703) 305-9764. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 309-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chuong D Ngo  
Primary Examiner  
Art Unit 2124

08/10/2004

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